# Natural Gas and Oil Exploration & Production R&D

## **GOALS**

### **Natural Gas**

- By 2001, develop lower cost drilling technology that can reduce overall production costs and avert premature abandonment of gas fields (target savings: \$45 million/year);
- By 2005, improve exploration technology to increase success rates (fewer dry holes) (target savings: \$100 million/year);
- By 2010, develop technology to boost production from low-permeability formations (target: 40 tcf additional reserves);

#### Oil

- By 1998, develop a new generation of exploration and production technologies that can increase success rates by 5-15% and lower costs by 3-8% (target: 87-135,000 bbls/day of additional oil production by 1998).
- By 2010, solve common production problems through field demonstration projects (target: increase in production of 600-900,000 bbls/day from existing fields).
- With the creation of the Golden, CO, field office, the Office of Fossil Energy will consolidate its exploration and production R&D program for both natural gas and oil (previously carried out by two separate field offices).
- Many exploration and production technologies are equally applicable to natural gas and oil field operations. Consolidation of planning and management for R&D in these areas will create synergies that mirror industry practices and permit more Federal dollars to be used for actual research rather than administrative overhead.

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### **Budget**

| Program Components                                  | FY95   | FY96<br>Conf. | FY97<br>Request | Cost-<br>Sharing |
|---|--------|---------------|-----------------|------------------|
| Natural Gas   |        |               |                 |                  |
| Natural Gas Exploration & Production                | \$18.4 | \$14.2        | \$15.0          | 45%              |
| Oil   |        |               |                 |                  |
| Oil Exploration & Production<br>Supporting Research | 35.4   | 33.5          | 34.0            | 33%              |
| Oil Recovery Field Demonstrations                   | 28.3   | 11.1          | 6.1             | 57%              |
| Total   | \$82.1 | \$58.7        | \$55.1          |                  |

- The Natural Gas E&P program is closely coordinated with the Gas Research Institute. The Federal program is providing gas producers with a better engineering "picture" of the nation's gas resources and improved, lower-cost technology for expanding gas production.
- The Oil E&P Program has two major components: (1) a government-industry field demonstration program to slow the abandonment of high-priority reservoirs, and (2) a supporting R&D program that is developing more advanced methods to recover the nearly 2 barrels of oil that are left behind for every 1 barrel produced today.